

WHAT IS CLAIMED IS:

1. A radio frequency tuner comprising: a first frequency changer having a substantially fixed frequency local oscillator for performing a block substantially fixed frequency upconversion of channels in any one of at least one first broadband signal in a first frequency range to a second higher frequency range;

a first multiplexer for selecting any one of an output signal of said first frequency changer and at least one second broadband signal in said second frequency range; and

a second frequency changer having a variable frequency local oscillator for selecting and converting any channel of a broadband signal selected by said multiplexer.

2. A tuner as claimed in claim 1, in which a frequency range of said at least one first broadband signal after said upconversion by said first frequency changer overlaps with a frequency range of said at least one second broadband signal.

3. A tuner as claimed in claim 1, comprising a second multiplexer for selecting any one of a plurality of first broadband signals for conversion by said first frequency changer.

4. A tuner as claimed in claim 1, in which said second frequency changer is a quadrature frequency changer.

5. A tuner as claimed in claim 1, comprising a variable bandwidth filter for filtering an output signal of said second frequency changer.

6. A tuner as claimed in claim 5, in which said filter is a low pass filter.

7. A tuner as claimed in claim 1, in which said variable frequency local oscillator has a tuning range at least as wide as said second frequency range.

8. A tuner as claimed in claim 1, in which said substantially fixed frequency local oscillator has a relatively narrow tuning range.
9. A tuner as claimed in claims 1, in which said substantially fixed frequency local oscillator has a fixed frequency.
10. A tuner as claimed in claim 1, comprising a single monolithic integrated circuit.